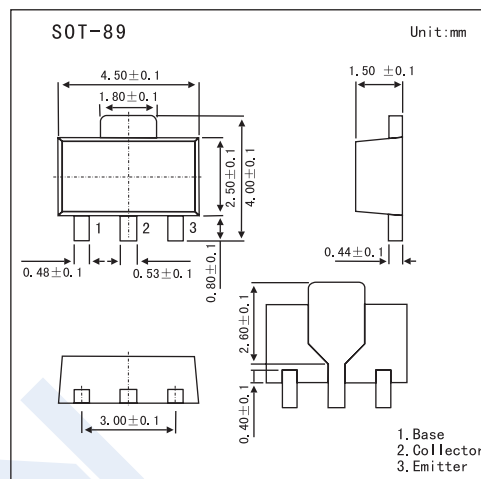


27MHz CB Transceiver Driver Applications

2SC4272

■ Features

- Small Size Making It Easy To Provide High-Density, Small-Sized Hybrid ICs.

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	75	V
Collector-Emitter Voltage	V_{CE0}	45	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	1.0	A
Collector Current (Pulse)	I_{CP}	1.5	A
Collector Power Dissipation	P_C^*	1.3	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

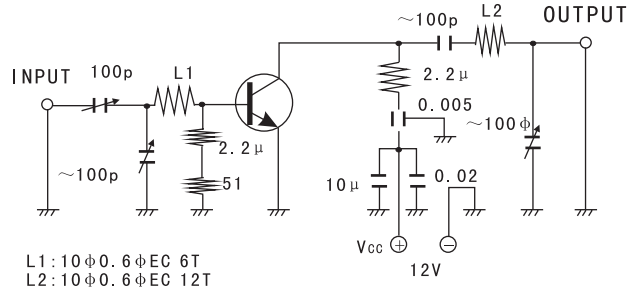
* Mounted on ceramic board ($250\text{ mm}^2 \times 0.8\text{ mm}$)

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	I_{CBO}	$V_{CB} = 40\text{V}$, $I_E = 0$			1.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 4\text{V}$, $I_C = 0$			1.0	μA
Collector-Base Breakdown Voltage	$V_{(BR)CB0}$	$I_C = 10\mu\text{A}$, $I_E = 0$	75			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CE0}$	$I_C = 1\text{mA}$, $R_{BE} = \infty$	45			V
Emitter-Base Breakdown Voltage	$V_{(BR)EB0}$	$I_E = 10\mu\text{A}$, $I_C = 0$	5			V
DC Current Gain	h_{FE}	$V_{CE} = 5\text{V}$, $I_C = 500\text{mA}$	60		320	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}$, $I_B = 50\text{mA}$		0.2	0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 500\text{mA}$, $I_B = 50\text{mA}$		0.9	1.2	V
Gain-Bandwidth Product	f_T	$V_{CE} = 10\text{V}$, $I_C = 50\text{mA}$	180	250		MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $f = 1\text{MHz}$		15		pF
Output Power	P_O	$V_{CC} = 12\text{V}$, $f = 27\text{MHz}$, $P_{in} = 35\text{mW}$	1.0	1.8		W
Collector Efficiency	η_C	See Test Circuit.	60			%

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Test Circuit

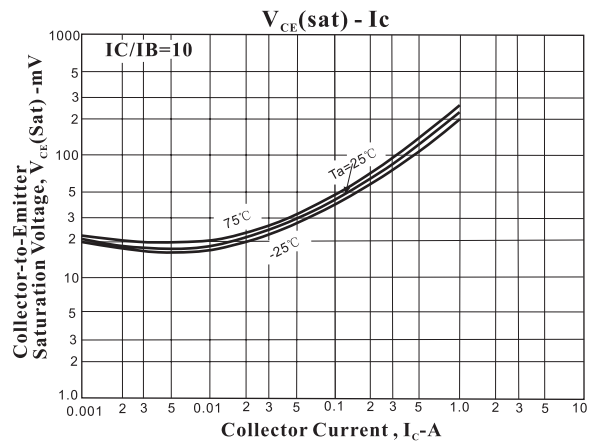
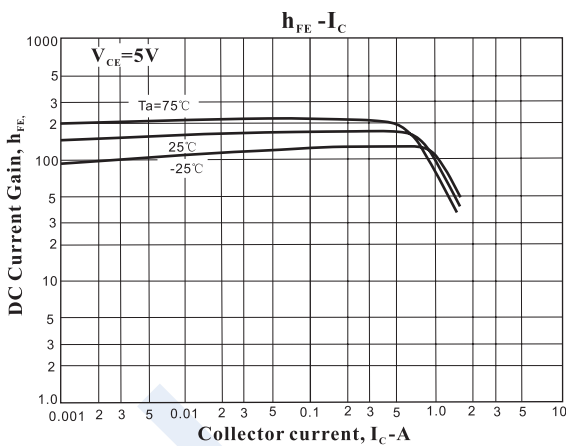
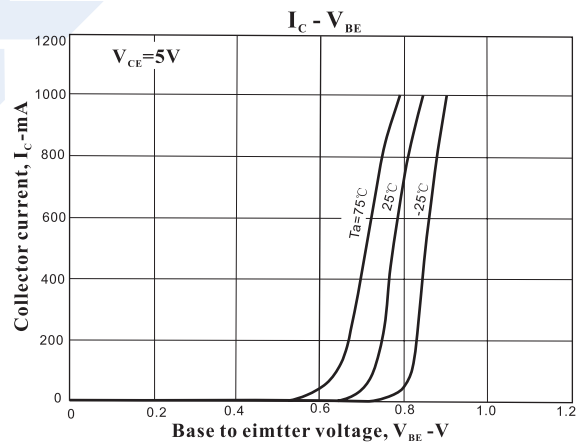
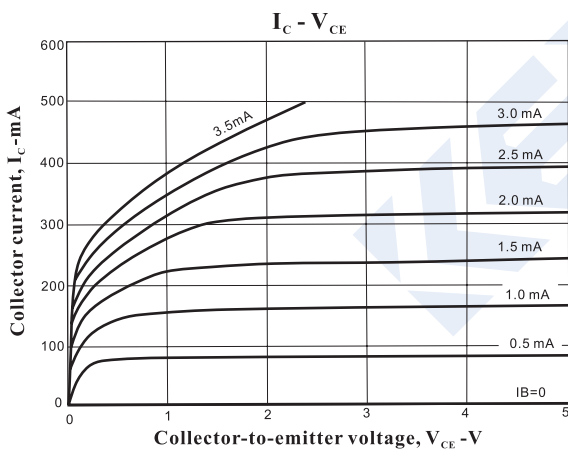


Unit (Resistance: Ω, Capacitance: F)

hFE Classification

Marking	CH		
Rank	D	E	F
hFE	60 ~ 120	100 ~ 200	160 ~ 320

Electrical Characteristics Curves



2SC4272

